

Applicant : Tim L. Ward et al.
Appl. No. : 10/045,986
Examiner : Ali M. Imam
Docket No. : 701470.48

Remarks

Claims 1-39 are currently pending, of which claims 1, 19, and 34 are independent.

Rejections under 35 USC §103

Claims 1-39 were rejected under 35 USC § 103 as being unpatentable over Terwilliger (US 5,766,135). Applicants respectfully disagree.

Case law makes clear that obviousness can only be established by modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); see also MPEP § 2143.01. In the present Office Action, the Examiner's rejection is based on the Terwilliger reference, which fails to show any teaching or suggestion for combining the elements of the instant invention.

Independent claims 1, 19, and 34 basically require:

- (1) a plurality of concave slots and
- (2) the concave slots having a surface that is substantially flat (claim 1), substantially straight (claim 34), or follows the contours of the surface (claim 19).

Terwilliger does not disclose or teach these features of the claims.

The Examiner asserts that Terwilliger teaches a medical device comprising a "concave hole/slot"; however, Terwilliger only discloses using a hole (Fig. 4), and does not disclose the use of a slot. A hole does not have the bottom reflecting surface of Applicants' slots. Furthermore, Terwilliger only discloses the use of a single hole (Fig. 4) and does not teach, suggest or motivate one of ordinary skill in the art to form a plurality of concave slots in the medical device. Third, and most importantly, in applicants' configuration, a transducer aligned with the flat portion of the surface of a concave slot may emit ultrasound waves that reflect off the entire flat portion of the surface and return back to the transducer, and "off axis" ultrasound waves may reflect off the curved portion of the surface and return back to the transducer. Thus, the

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configuration of each concave slot is significant and not merely a matter of choice. See *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

By contrast, Terwilliger does not teach or suggest having the surface of each concave slot substantially flat, or substantially straight, in a first cross section and substantially curved in a second cross section, or having a bottom surface that follows the contours of the contoured surface and curved side surfaces at each end of the bottom surface. Terwilliger's hole is simply a hole and differs from Applicants' slots because, for example, the hole lacks a bottom surface that is substantially flat (claim 1), substantially straight (claim 34), or follows the contours of the surface (claim 19). Terwilliger's hole is simply a prior art approach that does nothing special with the shape of its surfaces to increase reflectivity of ultrasound waves or to direct "off axis" ultrasound waves to the transducer.

Accordingly, the cited reference does not disclose, nor suggest, the novel features of the present invention as claimed.

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Conclusion

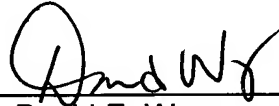
Prompt and favorable action on the merits of the claims is earnestly solicited. Should the Examiner have any questions or comments, the undersigned can be reached at (949) 567-6700.

The Commissioner is authorized to charge any fee which may be required in connection with this Amendment to Deposit Account No. 150665.

Respectfully submitted,

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